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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/383,802	08/26/1999	DONG HO CHO	678-346(P887	7058

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PAUL J FARRELL
DILWORTH & BARRESE
333 EARLE OVINGTON BLVD
UNIONDALE, NY 11553

EXAMINER

CORSARO, NICK

ART UNIT

PAPER NUMBER

2684

DATE MAILED: 07/10/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/383,802

Applicant(s)

CHO ET AL.

Examiner

Nick Corsaro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 14-17 is/are allowed.
- 6) ☒ Claim(s) 9-13 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

RESPONSE TO AMENDMENT

Response to Arguments

1. Applicant's arguments with respect to claims 9-13 and 18-20 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

2. Claims 1-8 and 14-17 are allowed.
3. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach a packet voice communication device and method, using a layered architecture including a wireless packet voice convergence protocol layer for requesting to assign a packet voice channel upon generation of voice traffic, entering an active state, and mapping a voice packet of variable length generated only upon activation of voice traffic onto a packet frame of fixed length and a medium access control layer and a physical layer for assigning the packet voice channel and transmitting the mapped packet frame to a station on the packet voice channel.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. Claims 9 and 18, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hulyalkar et al. (6,198,728) in view of Guy et al. (5,940,479).

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Consider claims 9 and 18, Hulyalkar discloses a packet based voice communication device in a mobile communication system having protocol architecture (see abstract lines 1-3, and col. 4 lines 33-38). Hulyalkar discloses a physical layer and a MAC (medium Access Control) layer for transmitting a voice packet received on a channel to an upper protocol layer that maps packets, therefore, a W-PVCP (Wireless Packet Voice Convergence Protocol) layer (see col. 4 lines 64-67, col. 5 lines 1-27). Hulyalkar discloses wherein said upper W-PVCP layer calculates a synchronization delay by utilizing a time factor that indicates delay included in a first voice packet received from said MAC layer, and buffers the subsequent voice packets for a predetermined time period based on the synchronization delay, and transmits the buffered voice packets to a packet application (see col. 11 lines 18-44, col. 11 lines 60-63, and col. 5 lines 1-67). Hulyalkar discloses a time factor in the first packet that would inherently if not obviously include a time stamp (see col. 11 lines 60-67 and col. 11 lines 18-45). Hulyalkar does not specifically disclose a time stamp for calculating synchronization delay and buffering voice packets for a predetermined period based on the delay and transmitting the voice packets. Guy teaches a time stamp for calculating synchronization delay and buffering voice packets for a predetermined period based on the delay and transmitting the voice packets (see col. 9 lines 30-67, and col. 16 lines 55-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Hulyalkar, and include a time stamp for calculating synchronization delay and buffering voice packets for a predetermined period based on the delay and transmitting the voice packets, as taught by Guy, thus allowing relative transition time to be indicated for delay sensitive packets.

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3. Claims 10-11 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hulyalkar in view of Guy as applied to claims 1 above, and further in view of Kubler et al. (6,389,010).

Consider claims 10, 11, 19, and 20, Hulyalkar and Guy; do not specifically disclose a CRC area. Kubler teaches a CRC area (see col. 13 lines 20-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Hulyalkar and Guy, and have a CRC, as taught by Kubler, thus allowing error detection.

4. Claim 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hulyalkar et al. (6,198,728) in view of Rumer et al. (5,883,893).

Consider claim 12, Hulyalkar discloses a packet based voice communication method in a mobile communication system (see col. 4 lines 33-47, col. 11 lines 26-36, col. 4 lines 33-47 and col. 11 lines 26-36). Hulyalkar discloses assigning a packet voice channel upon generation of voice data, entering an active state, and transmitting packetized voice data on said packet voice channel (see col. 6 lines 60-67, col. 7 lines 2-10, col. 7 lines 30-48, col. 13 lines 45-67, col. 14 lines 1-5, col. 7 lines 48-67 and col. 7 lines 47-68). Hulyalkar discloses allocating the slots to other terminals if a terminal has no voice packets to send therefore, releasing the assigned packet voice channel when there is no voice data to be transmitted for a predetermined time period (see col. 7 lines 47-65). Hulyalkar discloses entering an inactive state (see abstract lines 7-10, col. 4 lines 5-8, col. 5 lines 27-60, col. 6 lines 60-67, col. 7 lines 1-10, col. 7 lines 24-47). Hulyalkar does not specifically disclose re-entering the packet voice channel active state from the inactive state when a packet voice channel assigned to the transmit newly generated voice data. Rumer teaches re-entering the packet voice channel active state from the inactive state when a packet

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voice channel assigned to the transmit newly generated voice data (see col. 3 lines 28-32, col. 4 line 54-67, col. 6 lines 4-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Hulyalkar, and re-enter the packet voice channel active state from the inactive state when a packet voice channel assigned to the transmit newly generated voice data, as taught by Rumer, thus allowing excess bandwidth to be used for other terminals.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hulyalkar in view of Rumer as applied to claims 12 above, and further in view of Kubler et al. (6,389,010).

Consider claim 13 Hulyalkar and Rumer; do not specifically disclose a CRC area. Kubler teaches a CRC area (see col. 13 lines 20-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Hulyalkar and Rumer, and have a CRC, as taught by Kubler, thus allowing error detection.

Conclusion

4. Any inquiry concerning this communication should be directed to Nick Corsaro at telephone number (703) 306-5616.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung (acting supervisor), can be reached at (703) 308-7745. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology center 2600 only)

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth, Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 customer Service Office whose telephone number is (703) 306-0377.

Nick Corsaro

A handwritten signature in black ink, appearing to read "Nick Corsaro", written in a cursive style.